**BACKGROUND**

Nuclear pore complexes (NPCs) are the channels for the bi-directional movement of macromolecules between the nucleus and cytoplasm, and contain more than 100 different subunits. Many of them belong to a family called nucleoporins, which are characterized by the presence of O-linked glucosamine moieties and a distinctive pentapeptide repeat (XFXFG). Nup50 (nucleoporin 50), also known as NPA60 or NPA60L (nuclear pore-associated protein 60 kDa-like), is a 488 amino acid nuclear protein that functions as a binding site for export receptor-cargo complexes. Localizing to the nucleoplasmic fibrils of the nuclear pore complex, Nup50 associates with various transport receptor proteins including p72. While ubiquitously expressed, Nup50 is found at highest levels in peripheral blood leukocytes, testis and fetal liver, and contains multiple FG repeats in addition to a single RanBD1 domain.

**APPLICATIONS**

Nup50 (G-4) is recommended for detection of Nup50 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Nup50 siRNA (h): sc-75979, Nup50 siRNA (m): sc-150125, Nup50 shRNA Plasmid (h): sc-75979-SH, Nup50 shRNA Plasmid (m): sc-150125-SH, Nup50 shRNA (h) Lentiviral Particles: sc-75979-V and Nup50 shRNA (m) Lentiviral Particles: sc-150125-V.

Molecular Weight of Nup50: 50 kDa.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG, BP-HRP: sc-516132 or m-IgG, BP-HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG, BP-FITC: sc-516185 or m-IgG, BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**PRODUCT**

Each vial contains 200 µg IgG, lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Nup50 (G-4) is available conjugated to agarose (sc-398993 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398993 HRP), 200 µg/ml, for WB, HB-ICP and ELISA; to either phycocerythrin (sc-398993 PE), fluorescein (sc-398993 FITC), Alexa Fluor® 488 (sc-398993 AF488), Alexa Fluor® 546 (sc-398993 AF546), Alexa Fluor® 594 (sc-398993 AF594) or Alexa Fluor® 647 (sc-398993 AF647), 200 µg/ml, for WB (RGB), IF, HB-ICP and FCM; and to either Alexa Fluor® 680 (sc-398993 AF680) or Alexa Fluor® 790 (sc-398993 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**REFERENCES**

4. Lindsay, M.E., et al. 2002. Nup50 is found at highest levels in peripheral blood leukocytes, testis and fetal liver, and contains multiple FG repeats in addition to a single RanBD1 domain.

**CHROMOSOMAL LOCATION**

Genetic locus: NUP50 (human) mapping to 22q13.31; Nup50 (mouse) mapping to 15 E2.

**SOURCE**

Nup50 (G-4) is a mouse monoclonal antibody raised against amino acids 43-166 mapping near the N-terminus of Nup50 of human origin.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.